REMARKS/ARGUMENTS

Reconsideration and withdrawal of the rejections of the application are respectfully requested in view of the remarks herewith, which place the application into condition for allowance.

I. STATUS OF THE CLAIMS AND FORMAL MATTERS

Claims 1-14 are currently pending. Claims 1, 4-6, and 10-13 are independent.

II. REJECTIONS UNDER 35 U.S.C. §112

Claims 1-14 were rejected as allegedly failing to comply with the enablement requirement under §112.

First, the Office Action states, "There is no explicit or implicit disclosure of how an image can have distortion eliminated in a single step." Second, notes each independent claim recites, "wherein the high quality picture has a higher quality than the selected entirety or the portion of the picture image whose distortion has been eliminated." The Office Action asserts the recited feature is not enabled in the specification and conflicts with the "single step" limitation described above.

Applicants respectfully traverse this rejection.

The Office Action does not cite the appropriate location in the specification for the recited "single step" limitation recited in the independent claims. Further, the Office Action interpretation of the "wherein clause" does not comport with the specification. Applicants note the predictive operation of the present invention is a single step. As stated in the as-filed specification:

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"...since learning is carried out between distorted picture image and distortion-free high quality picture, distorted picture image is corrected so that there results distortion-free picture image and is collectively converted into high quality picture image. Thus, resolution of distorted picture image can be converted into resolution similar to the portion free from distortion. Since conversion can be made by only predictive operation <u>without a processing to carry out interpolation after coordinate transformation</u> (conversion), it does not take much time in operation." Page 35, lines 13-19.

Thus, the present invention discloses the predictive operation is a <u>single step</u>. The predictive operation is described in the specification.

Applicants respectfully request withdrawal of the §112 rejection of claims 1-14.

III. REJECTIONS UNDER 35 U.S.C. §103

Claims 1, 4, 5 and 12-14 were rejected under 35 U.S.C. §103(a) as allegedly unpatentable over U.S. Patent No. U.S. Patent No. 5,280,540 to Addeo et al. ("Addeo") in view of U.S. Patent No. 5,438,357 to McNelley.

Applicants respectfully traverse this rejection.

Independent claim 1 is representative and recites, *inter alia*:

"picture image conversion means for <u>both</u> <u>eliminating</u> distortion of the selected entirety or the portion of the picture image <u>and for converting</u> the selected entirety or portion into high quality picture image with increased resolution in a single step,

Applicants re-assert the arguments presented in response to the Office Action of September 21, 2005, December 28, 2005, March 6, 2006 and July 11, 2006.

As understood by Applicants, Addeo discloses a method of correcting the aspect ratio transformation. Instead of the optical anamorphic lens, Addeo includes an aspect ratio transformation circuit that can be used to transform the aspect ratio of an image by expanding an

image along a direction by interpolation or by reducing an image along a direction by decimation.

"While the operation of the system (100) of FIG. 1 has been explained in connection with the transmission of an image from the station (200) to the station (300), it should be noted that images can be transmitted from the station (300) to the station (200) in the very same manner. Thus, the camera (350) at the station (300) is equipped with the anamorphic lens (380) for performing aspect ratio transformations. The station (200) is equipped with a projector (260) whose aspect ratio can be adjusted electronically or by use of the optical anamorphic lens (290) to reverse a transformation introduced at the station (300)." Col. 7, lines 8-19.

"An alternative teleconferencing system (100') is illustrated in FIG. 5. The teleconferencing system (100') of FIG. 5 is the same as the teleconferencing system (100) of FIG. 1 except that the anamorphic lenses (280) and (380) are not present at the cameras (250) and (350) to perform aspect ratio transformations." Col. 7, lines 20-25.

"Instead the station (200) includes an aspect ratio transformation circuit (510) which is connected electronically to the output of the camera (250). Similarly, the station (300) includes an aspect ratio transformation circuit (610) which is connected to the output of the camera (350). These aspect ratio transformation circuits can be used to transform the aspect ratio of an image by expanding an image along a direction by interpolation or by reducing an image along a direction by decimation. The transformation is then undone at the receiving projector either electronically or optically." Col. 7, lines 26-36.

In stark contrast, the present invention recites, "picture image conversion means for both eliminating distortion of the selected entirety or the portion of the picture image and for

converting the selected entirety or portion into high quality picture image <u>with increased resolution</u> in a <u>single step</u> . . . wherein the high quality picture has a higher quality than the selected entirety or the portion of the picture image whose distortion has been eliminated, and . . . wherein the single step operates on only the distorted image to both eliminate distortion and convert into a higher quality image with increased resolution." That is, in the present application, a single step operates on the distorted image to <u>both</u> eliminate distortion <u>and</u> provide a higher quality image. Based on the single step (*e.g.*, classification adaptive processing) <u>distortion-free and higher quality</u> image is calculated from the stored distorted image.

As an example of the present invention, predictive circuit (114) executes <u>adaptive processing</u> on the basis of optimum predictive coefficient "w" delivered from the predictive coefficient memory circuit (113) to output pixel value "y" of distortion-free picture image to the multiplexer (MPX) (37). Specification page 25, lines 13-20. Also, because prediction from a picture block having <u>lesser number of pixels</u> to a picture block having <u>greater number of pixels</u> is carried out at the stage of the adaptive processing, it is necessary to predict plural distortion-free pixel values by making use of the same distorted picture block. Specification page 20, lines 1-18.

That is, the producing of pixel <u>eliminated the distortion</u> and <u>increased the resolution</u> is carried out by the adaptive processing as a single step.

McNelley does not add the element missing from Addeo.

Claim 1 is not obvious over Addeo and McNelley because those references taken alone or in combination do not teach or suggest each and every limitation recited in the claim. In particular the cited references do not teach or suggest, "picture image conversion means for both

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eliminating distortion of the selected entirety or the portion of the picture image and for converting the selected entirety or portion into high quality picture image with increased resolution in a single step . . . wherein the high quality picture has a higher quality than the selected entirety or the portion of the picture image whose distortion has been eliminated, and . . . wherein the single step operates on only the distorted image to both eliminate distortion and convert into a higher quality image with increased resolution." as recited in claim 1.

For reasons similar to those described above, independent claims 4-6 and 10-13 are also believed to be patentable.

IV. **DEPENDENT CLAIMS**

The other claims are dependent from one of the claims discussed above and are therefore believed patentable for at least the same reasons. Because each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.
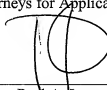
<u>CONCLUSION</u>

Claims 1-14 are in condition for allowance. In the event the Examiner disagrees with any of statements appearing above with respect to the disclosure in the cited reference, or references, it is respectfully requested that the Examiner specifically indicate those portions of the reference, or references, providing the basis for a contrary view.

Please charge any additional fees that may be needed, and credit any overpayment, to our Deposit Account No. 50-0320.

In view of the foregoing amendments and remarks, it is believed that all of the claims in this application are patentable and Applicants respectfully request early passage to issue of the present application.

Respectfully submitted,

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